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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/762,416	01/22/2004	Justin P. Merkys	047177-9111-00	4547
23585	7590	03/10/2005	EXAMINER	
MICHAEL BEST & FRIEDRICH LLP			WALBERG, TERESA J	
3773 CORPORATE PARKWAY			ART UNIT	
SUITE 360			PAPER NUMBER	
CENTER VALLEY, PA 18034-8217			3742	

DATE MAILED: 03/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b> 10/762,416	<b>Applicant(s)</b> MERKYS ET AL.	
	<b>Examiner</b> Teresa J. Walberg	<b>Art Unit</b> 3742	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>1/22/04</u> . | 6) <input type="checkbox"/> Other: ____  |

### DETAILED ACTION

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 3, 4, 12, 14-21, 25, 27, and 28 are rejected under 35

U.S.C. 102(b) as being anticipated by Hughes et al (5,279,360).

Hughes et al disclose a condenser assembly (col. 7, lines 20-23) adapted to condense a refrigerant for use in a refrigeration system (abstract lines 1-2) including at least one microchannel condenser coil (col. 3, lines 26-30) including inlet and outlet manifolds (10, 12), a plurality of cooling fins spaced between 12 and 24 fins per inch (col. 6, lines 6-7), a plurality of microchannels measuring between about 0.5 by 0.5 mm and about 4 mm by 4 mm (col. 6, lines 53-57), and a frame (Fig. 7) supporting the condenser coil.

While Hughes et al do not state that the refrigerant being condensed is for use in a retail store refrigeration system, this is deemed to be a mere statement of intended use which Hughes would necessarily be capable of performing.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 3742

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2, 5-11, 13, 22-24, 26, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hughes et al (5,279,360) in view of Cox et al (5,121,613).

Hughes et al discloses a condenser assembly having the claimed structure with the exception of a fan supported by the frame, a plurality of coil assemblies, and the number of coils being selected based on the calculated heat load.

Cox et al discloses a refrigerant coil apparatus including a fan (blower 18) supported by the frame, a plurality of coil assemblies (col. 2, lines 32-41), and the number of coils being selected based on the calculated heat load (col.3, lines 24-34).

It would have been obvious in view of Cox et al to use a fan supported by the frame in the condenser assembly of Hughes to ensure sufficient air flow through the coils and to use a plurality of coil assemblies, and the number of coils being selected based on the calculated heat load in the condenser assembly of Hughes to enable easily customizing the capacity of the coils to the needed cooling rate.

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Art Unit: 3742

Mathews is cited to show a fan mounted in a frame above cooling coils.

Sasaki et al (5,529,116), Sasaki et al (5,743,328), Shlak et al, and Yamomoto et al are cited to microchannel heat exchangers.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Teresa J. Walberg whose telephone number is 571-272-4790. The examiner can normally be reached on M-F 9:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robin Evans can be reached on 571-272-4777. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Teresa J. Walberg  
Primary Examiner  
Art Unit 3742

tjw